



## REVIEW ON PREGNANCY SYMPTOMS, TESTS, VACCINES, MEDICATIONS, COMPLICATIONS, COUNSELLING (PRENATAL, ANTENATAL, POSTNATAL)

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### ABSTRACT

Pregnancy is the period during which a fetus develops in woman's uterus, typically lasting about 40 weeks from the last menstrual period it involves significant physical and physiological changes in the mother's body to support fetal development. 40 weeks of pregnancy are often divided into 3 trimesters each with distinct developmental stages. During this time the mother's body goes through immense changes involving all organ systems to sustain the growing fetus. All medical providers must be aware of these alterations present in pregnancy to be able to provide the best possible care for both mother and fetus.

**KEYWORDS:** Preterm labor (is labor that begins before 37 weeks of pregnancy), anemia, postpartum depression, preeclampsia, still birth (loss of pregnancy after 20<sup>th</sup> week of pregnancy), prenatal, antenatal, postnatal.

### INTRODUCTION

- Pregnancy is defined as the time period from conception to birth.
- After the egg is fertilized by a sperm and then implanted in lining of uterus. It develops into placenta and embryo and later into fetus.
- Pregnancy last for 40 weeks beginning from first day of woman's last menstrual period and divided into three trimesters each last for 3 months.

- First trimester
- Second trimester
- Third trimester

### FIRST TRIMESTER

- Duration: Baby weighs less than 30gm for 13 weeks.
- Symptoms: Morning sickness, tender breasts, frequent urination.
- Health care: Regular check ups, urine/blood tests.

- Emotional support: Have partner support proper meal time.

### SECOND TRIMESTER

- Duration: Baby reaches 820gms by 26<sup>th</sup> week.



- Symptoms: Swelling, weight gain, back pain, itchy abdomen.

- Health care: Meditative routines, low intensity exercises.
- Emotional support: Birthing class routines, talk about emotions.

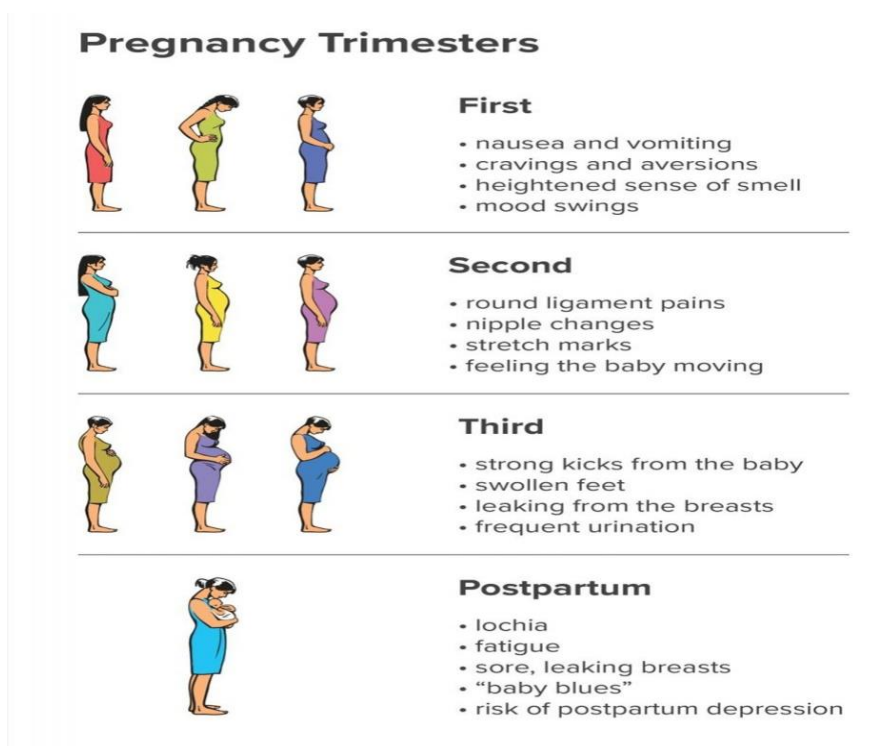
### THIRD TRIMESTER

- Duration: Baby grows 3.5kgs by 40<sup>th</sup> week.
- Symptoms: Back/hip pain, frequent urination, Braxton hicks contraction.
- Health care: Frequent check up's, vaginal exams, monitor baby moment.

- Emotional support: Excitement, nervousness, discomfort, exhaustion.

### CHANGES AFTER POSTPARTUM

- Lochia
- Fatigue
- Sore leaking breasts
- Baby blues, Risk of depression



### MATERNAL CHANGES



- Increased breathing rate.
- Increase in kidney and bladder size.
- High pigmentation on skin. Increased blood supply to breasts and uterus.

### VACCINES PRESCRIBED FOR MATERNAL WOMENS



- Increased level of estrogen and progesterone
- Changes smell, taste and increase in saliva.
- Softening of joints.
- Increased mobility of sacroiliac and symphylasis pubis.
- Increased blood flow.
- Increased need of glucose, water, iron to fetus.
- Heart rate increases to 70-90 bpm.
- Blood pressure increase in first and second trimesters and stay normal in the third trimester.

- ✓ First trimester: (week- 1 to 12)
  - Influenza vaccine
  - Covid -19 vaccine
- ✓ Second trimester: (week-13 to 26)
  - TDAPtetanus diphtheria and acellular pertussis) vaccine (between 27 to 36 week of gestation period)
- ✓ Third trimester : (week -27 to 40)
  - TDAP vaccine(27 to 36 weeks)

- RSV(respiratory syncytial virus) vaccine(32 to 36weeks)

### TESTS FOR CONFIRMING PREGNANCY



- Home pregnancy test
- Blood test
- Urine test-presence of HCG in urine
- Imaging test-ultrasound

### TESTS DURING PREGNANCY

#### FIRST TRIMESTER

- Urine test
- Blood test

- Conformation test
- Dating ultrasound
- NT- scan (nuchal translucency)
- Chronic villus samplysis

#### SECOND TRIMESTER

- Anatomy ultrasound
- Amminocentosis
- Glucose screening test
- Group B strep test

#### THIRD TRIMESTER

- Fetal moment count
- Non stress test
- Biophysical profile
- GBS
- Cervical length measurement

#### ADDITIONAL TESTS

- Preeclampsia screening
- Fetal echocardiogram
- Placental functioning test
- Maternal serum screening

### BABY POSITIONS IN WOMB



- Cephalic occiput anterior: head down facing mother's back common position.
- Occiput posterior: baby facing mother's pubic bone.
- Breech position: bottom leads first with head at top.
- Transverse: baby across womb.
- Face position: head is hyperextended.

### BABY SIZE GROWTH



**MEDICINES PRESCRIBED DURING PREGNANCY****FIRST TRIMESTER**

- ❖ Folic acid: prevents birth defects of brain and spine.
- ❖ Prenatal vitamins: ensure essential nutrients.
- ❖ Iron supplements: prevents anemia.
- ❖ Calcium supplements: supports fetal bones

**MORNING SICKNESS AND NAUSEA**

- ❖ Vitamin B6 :relive morning sickness
- ❖ Doxylame
- ❖ Ondansterone : relive nausea

**PAIN RELIEF**

- ❖ Acetaminophene: relive pain and fear
- ❖ Ibuprofen: relive pain

**INFECTIONS AND ANTIBIOTICS**

- ❖ Pencillin
- ❖ Cephalexin

- ❖ Azithromycin

**PRECLAMPSIA**

- ❖ Methyl dopa
- ❖ Labetatol
- ❖ Magnesium sulphate

**ASTHMA AND RESPIRATORY ISSUES**

- ❖ Albuterol
- ❖ Fluticasone

**ANXIETY AND DEPRESSION**

- ❖ Fluoxentne
- ❖ Sertraline
- ❖ Citalopram

**OTHER MEDICATIONS**

- ❖ Metoclopramide
- ❖ Pseudoephedrine

**SELECTED DRUGS WITH SIGNIFICANT ADVERSE EFFECTS ON THE FETUS**

Drug	Trimester	Effect
ACEI	All	Renal damage
TCAs	Third	Neonatal withdrawal syndrome
Barbiturates	All	Chronic use: Neonatal dependence
Carbamazepine	First	Neural tube defects
Cocaine, tamoxifen	All	Risk of spontaneous abortion
Ethanol	All	Fetal alcohol syndrome
Iodine	All	Congenital goiter, hypothyroidism
Lithium	First	Increased ICP
Tobacco	All	Intrauterine growth retardation
Tetracycline	All	Discoloration of teeth and altered bone growth
Thalidomide & DES	First	Limb malformation (DES Cancer Risk Increased)
Warfarin	First	Alters respiratory tract formation
	Second	CNS malformation
	Third	Risk of bleeding – IC hemorrhage

**COMPLICATIONS DURING PREGNANCY**

- ❖ High Blood Pressure
- ❖ Gestational Diabetes
- ❖ Infections
- ❖ Preeclampsia

- ❖ Preterm Labor
- ❖ Depression & Anxiety
- ❖ Pregnancy Loss/Miscarriage
- ❖ Stillbirth
- ❖ Other Complications

**HIGH BLOOD PRESSURE**

High blood pressure, also called hypertension, occurs when arteries carrying blood from the heart to the body organs are narrowed. This causes pressure to increase in

the arteries. In pregnancy, this can make it hard for blood to reach the placenta, which provides nutrients and oxygen to the fetus. Reduced blood flow can slow the



growth of the fetus and place the mother at greater risk of preterm labor and preeclampsia.

Women who have high blood pressure before they get pregnant will continue to have to monitor and control it,

with medications if necessary, throughout their pregnancy. High blood pressure that develops in pregnancy is called gestational hypertension. Typically, gestational hypertension occurs during the second half of pregnancy and goes away after delivery.

## GESTATIONAL DIABETES



Gestational diabetes occurs when a woman who didn't have diabetes before pregnancy develops the condition during pregnancy.

Normally, the body digests parts of food into a sugar called glucose. Glucose is body's main source of energy. After digestion, the glucose moves into blood to give energy.

To get the glucose out of blood and into the cells of body, pancreas makes a hormone called insulin. In gestational diabetes, hormonal changes from pregnancy cause the body to either not make enough insulin, or not use it normally. Instead, the glucose builds up in blood, causing diabetes, otherwise known as high blood sugar.

Managing gestational diabetes, by following a treatment plan outlined by a health care provider, is the best way to reduce or prevent problems associated with high blood sugar during pregnancy. If not controlled, it can lead to high blood pressure from preeclampsia and having a large infant, which increases the risk for cesarean delivery.

## INFECTIONS

Infections, including some sexually transmitted infections (STIs), may occur during pregnancy and/or delivery and may lead to complications for the pregnant woman, the pregnancy, and the baby after delivery. Some infections can pass from mother to infant during delivery when the infant passes through the birth canal; other infections can infect a fetus during the pregnancy. Many of these infections can be prevented or treated with appropriate pre-pregnancy, prenatal, and postpartum follow-up care.

Some infections in pregnancy can cause or contribute to:

- Pregnancy loss/miscarriage (before 20 weeks of pregnancy)

- Ectopic pregnancy (when the embryo implants outside of the uterus, usually in a fallopian tube)
- Preterm labor and delivery (before 37 completed weeks of pregnancy)
- Low birth weight
- Congenital anomalies, including blindness, deafness, bone deformities, and intellectual disability
- Stillbirth (at or after 20 weeks of pregnancy)
- Illness in the newborn period (first month of life)
- Newborn death
- Maternal health complications

If you are planning to get pregnant, talk with your health care provider about getting vaccines and vaccine boosters for chicken pox (also called varicella) and rubella (also called German measles) before you conceive. You can also get some vaccines, such as the flu shot, while you are pregnant. If you know you have an infection, such as an STI, talk with your health care provider about it before you conceive to increase your chances of a healthy pregnancy.

Early prenatal testing for STIs and other infections can determine if the infection can be cured with drug treatment. Or, if you know you have an infection, tell your pregnancy health care provider about it as early as possible in your pregnancy. Early treatment decreases the risk to the fetus and infant.<sup>[2]</sup> Even if the infection can't be cured, you and your health care provider can take steps to protect your health and your infant's health.

## PREECLAMPSIA

Preeclampsia is a serious medical condition that can lead to preterm delivery and death. Its cause is unknown, but some women are at an increased risk. Risk factors include:<sup>[5]</sup>

- First pregnancies
- Preeclampsia in a previous pregnancy

- Existing conditions such as high blood pressure, diabetes, kidney disease, and systemic lupus erythematosus
- Being 35 years of age or older
- Carrying two or more fetuses
- Obesity

### PRETERM LABOR

Preterm\_labor is labor that begins before 37 weeks of pregnancy. Any infant born before 37 weeks is at an increased risk for health problems, in most cases because organs such as the lungs and brain finish their development in the final weeks before a full-term delivery (39 to 40 weeks).

Certain conditions increase the risk for preterm labor, including infections, developing a shortened cervix, or previous preterm births.

Progesterone, a hormone produced naturally during pregnancy, may be used to help prevent preterm birth in certain women. A 2003 study led by NICHD researchers found that progesterone supplementation to women at high risk for preterm delivery due to a prior preterm birth reduces the risk of a subsequent preterm birth by one third.<sup>[7]</sup>

Research shows that as many as 13% of U.S. women reported frequent symptoms of depression after childbirth, and that anxiety co-occurs in up to 43% of depressed pregnant and postpartum women, making pregnancy-related depression and anxiety among the more common pregnancy complications. These medical conditions can have significant effects on the health of the mother and her child. But the good news is that these are *treatable* medical conditions. Miscarriage is the term used to describe a pregnancy loss from natural causes before 20 weeks. Signs can include vaginal spotting or bleeding, cramping, or fluid or tissue passing from the vagina. However, bleeding from the vagina does not mean that a miscarriage will happen or is happening. Women experiencing this sign at any point in their pregnancy should contact their health care provider.

The loss of pregnancy after the 20th week of pregnancy is called a stillbirth. In approximately half of all reported cases, health care providers can find no cause for the loss. However, health conditions that can contribute to stillbirth include chromosomal abnormalities, placental problems, poor fetal growth, chronic health issues of the mother, and infection.

Other complications of pregnancy may include the following:

- **Severe, persistent nausea and vomiting.** Although having some nausea and vomiting is normal during pregnancy, particularly in the first trimester, some women experience more severe symptoms that last into the third trimester.

The cause of the more severe form of this problem, known as hyperemesis gravidarum (pronounced *HEYE-pur-EM-uh-suhss grav-uh-DAR-uhm*), is not known. Women with hyperemesis gravidarum experience nausea that does not go away, weight loss, reduced appetite, dehydration, and feeling faint.

Affected women may need to be hospitalized so that they can receive fluids and nutrients. Some women feel better after their 20th week of pregnancy, while others experience the symptoms throughout their pregnancy.<sup>[10]</sup>

- **Iron-deficiency anemia.** Pregnant women need more iron than normal for the increased amount of blood they produce during pregnancy. Iron-deficiency anemia—when the body doesn't have enough iron—is somewhat common during pregnancy and is associated with preterm birth and low birth weight. Symptoms of a deficiency in iron include feeling tired or faint, experiencing shortness of breath, and becoming pale. ACOG recommends 27 milligrams of iron daily (found in most prenatal vitamins) to reduce the risk for iron-deficiency anemia. Some women may need extra iron through iron supplements.<sup>[12]</sup> Your health care provider may screen you for iron-deficiency anemia and, if you have it, may recommend iron supplements.<sup>[13]</sup>

### COUNSELING OR EDUCATION DURING PREGNANCY

- prenatal counseling
- Antenatal counseling
- Postnatal counseling

### PRENATAL COUNSELLING

- The goal of prepregnancy care is to reduce the risk of adverse health effects for the woman, fetus, and neonate by working with the woman to optimize health, address modifiable risk factors, and provide education about healthy pregnancy.

### Nutrition

- The American College of Obstetricians and Gynecologists (ACOG) recommends a healthy diet and taking supplements like folic acid.



- **Labor and delivery :** Prepares for labor and delivery options, including pain management
- **Physical changes :** Discusses how the body changes during pregnancy

- **Breastfeeding** : Provides information about breastfeeding
- **Postpartum care** : Helps prepare for the transition after birth
- **Genetic conditions** : Helps identify and treat genetic conditions in the fetus
- **Emotional changes** : Helps manage stress and anxiety
- Women should be counseled to seek medical care before attempting to become pregnant or as soon as they believe they are pregnant to aid in correct dating and to be monitored for any medical conditions in which treatment should be modified during pregnancy.
- Many chronic medical conditions such as diabetes, hypertension, psychiatric illness, and thyroid disease have implications for pregnancy outcomes and should be optimally managed before pregnancy.
- All prescription and nonprescription medications should be reviewed during pre-pregnancy counseling. This review also should include nutritional supplements and herbal products that patients may not consider to be medication use but could affect reproduction and pregnancy.
- Women who present for pre-pregnancy counseling should be offered screening for the same genetic conditions as recommended for pregnant women.
- Women of reproductive age should have their immunization status assessed annually for tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap); measles–mumps–rubella; hepatitis B; and varicella.
- All patients should receive an annual influenza vaccination; those women who are or will be pregnant during influenza season will have additional benefits.
- Assessment of the need for sexually transmitted infection (STI) screening should be performed at the time of pre-pregnancy counseling.
- Patients with potential exposure to certain infectious diseases, such as the Zika virus, should be counseled regarding travel restrictions and appropriate waiting time before attempting pregnancy.
- All patients should be routinely asked about their use of alcohol, nicotine products, and drugs, including prescription opioids and other medications used for nonmedical reasons.
- Screening for intimate partner violence should occur during pre-pregnancy counseling.
- Female pre-pregnancy folic acid supplementation should be encouraged to reduce the risk of neural tube defects (NTDs).
- Patients should be screened regarding their diet and vitamin supplements to confirm they are meeting recommended daily allowances for calcium, iron, vitamin A, vitamin B<sub>12</sub>, vitamin B, vitamin D, and other nutrients.

- Patients should be encouraged to try to attain a body mass index (BMI) in the normal range before attempting pregnancy, because abnormal high or low BMI is associated with infertility and maternal and fetal pregnancy complications.

### ANTENATAL COUNSELING

**Antenatal counselling include counselling during pregnancy condition and it include**

- Healthy Weight
- Healthy Eating
- Physical Activity

Having a baby is an exciting time that often inspires women to make healthier lifestyle choices and, if needed, work toward a healthy body weight. Here you'll find tips on how to improve your eating and physical activity habits while you're pregnant and after your baby is born.

These tips can also be useful if you're not pregnant but are thinking about having a baby! By making changes now, you can get used to new lifestyle habits. You'll give your baby the best possible start on life and be a healthy example to your family for a lifetime.

#### Healthy Weight

**Why is gaining a healthy amount of weight during pregnancy important?**

Gaining an appropriate amount of weight during pregnancy helps your baby grow to a healthy size. But gaining too much or too little weight may lead to serious health problems for both pregnant woman and baby.

According to experts gaining too much weight during pregnancy raises your chances for developing gestational diabetes (diabetes during pregnancy) and high blood pressure during pregnancy. It also increases your risk for type 2 diabetes and high blood pressure later in life. If overweight or obesity during pregnancy, then chances for health problems may be even higher. And also be more likely to have a cesarean section (C-section)

Gaining a healthy amount of weight helps an easier pregnancy and delivery. It may also help make it easier for to get back to a healthy weight after delivery. Research shows that recommended amounts of weight gain during pregnancy can also lower the chances that pregnant or child will have obesity and weight-related problems later in life.

**How much weight should I gain during my pregnancy?**

How much weight you should gain depends on your body mass index (BMI) before pregnancy. BMI is a measure of your weight in relation to your height. You can use a formula to calculate your BMI.

The general weight-gain advice below is for women having only one baby.

<b>If you</b>	<b>You should gain about</b>
Are underweight (BMI less than 18.5)	28 to 40 pounds
Are at a healthy weight (BMI of 18.5 to 24.9)	25 to 35 pounds
Are overweight (BMI of 25 to 29.9)	15 to 25 pounds
Have obesity (BMI of 30+)	11 to 20 pounds



It's important to gain weight very slowly. The old myth that you're "eating for two" is not true. During the first 3 months, baby is only the size of a walnut and doesn't need many extra calories. The following rate of weight gain is advised

- 1 to 4 pounds total in the first 3 months
- 2 to 4 pounds each month from 4 months until delivery

Talk to your health care professional about how much weight gain is appropriate for you. Work with him or her to set goals for your weight gain. Take into account your age, weight, and health. Track your weight at home or when you visit your health care professional.

Don't try to lose weight if you're pregnant. Your baby needs to be exposed to healthy foods and low-calorie beverages (particularly water) to grow properly. Some women may lose a small amount of weight at the start of pregnancy. Speak to your health care professional if this happens to you.

### Healthy Eating

#### How much should I eat and drink?

Consuming healthy foods and low-calorie beverages, particularly water, and the appropriate number of calories may help you and your baby gain the proper amount of weight.

How much food and how many calories you need depends on things such as your weight before pregnancy, your age, and how quickly you gain weight. If you're at a healthy weight, the Centers for Disease Control and Prevention (CDC) says you need no extra calories in your first trimester, about 340 extra calories a day in your second trimester, and about 450 extra calories a day in your third trimester. You also may not need extra calories during the final weeks of pregnancy.

Check with your health care professional about your weight gain. If you're not gaining the weight you need, he or she may advise you to take in more calories. If you're gaining too much weight, you may need to cut down on calories. Each woman's needs are different. Your needs also depend on whether you were underweight, overweight, or had obesity before you became pregnant, or if you're having more than one baby.

#### What kinds of foods and beverages should I consume?

A healthy eating plan for pregnancy includes nutrient-rich foods and beverages. *The Dietary Guidelines for Americans, 2020–2025* recommend these foods and beverages each day

- fruits and vegetables (provide vitamins and fiber)
- whole grains, such as oatmeal, whole-grain bread, and brown rice (provide fiber, B vitamins, and other needed nutrients)
- fat-free or low-fat milk and milk products or nondairy soy, almond, rice, or other drinks with added calcium and vitamin D
- protein from healthy sources, such as beans and peas, eggs, lean meats, seafood that is low in mercury (up to 12 ounces per week), and unsalted nuts and seeds, if you can tolerate them and aren't allergic to them.

A healthy eating plan also limits salt, solid fats (such as butter, lard, and shortening), and sugar-sweetened drinks and foods. Does your eating plan measure up? How can you improve your habits? Try consuming fruit like berries or a banana with hot or cold cereal for breakfast; a salad with beans or tofu or other non-meat protein for lunch; and a lean serving of meat, chicken, turkey, or fish and steamed vegetables for dinner. Think about new, healthful foods and beverages you can try.



Write down your ideas and share them with your health care professional.

### What if I'm a vegetarian?

A vegetarian eating plan during pregnancy can be healthy. Consider the quality of your eating plan and talk to your health care professional to make sure you're getting enough calcium, iron, protein, vitamin B12, vitamin D, and other needed nutrients. Your health care professional may also tell you to take vitamins and minerals that will help you meet your needs.

### Do I have any special nutrition needs now that I'm pregnant?

Yes. During pregnancy, you need more vitamins and minerals such as folate, iron, and calcium.

Getting the appropriate amount of folate is very important. Folate, a B vitamin also known as folic acid, may help prevent birth defects. Before pregnancy, you need 400 mcg per day from supplements or fortified foods, in addition to the folate you get naturally from foods and beverages. During pregnancy, you need 600 mcg. While breastfeeding, you need 500 mcg of folate per day. Foods high in folate include orange juice, strawberries, spinach, broccoli, beans, fortified breads, and fortified low-sugar breakfast cereals. These foods may even provide 100% of the daily value of folic acid per serving.

Most health care professionals tell women who are pregnant to take a prenatal vitamin every day and consume healthy foods, snacks, and beverages.

### What other new habits may help my weight gain?

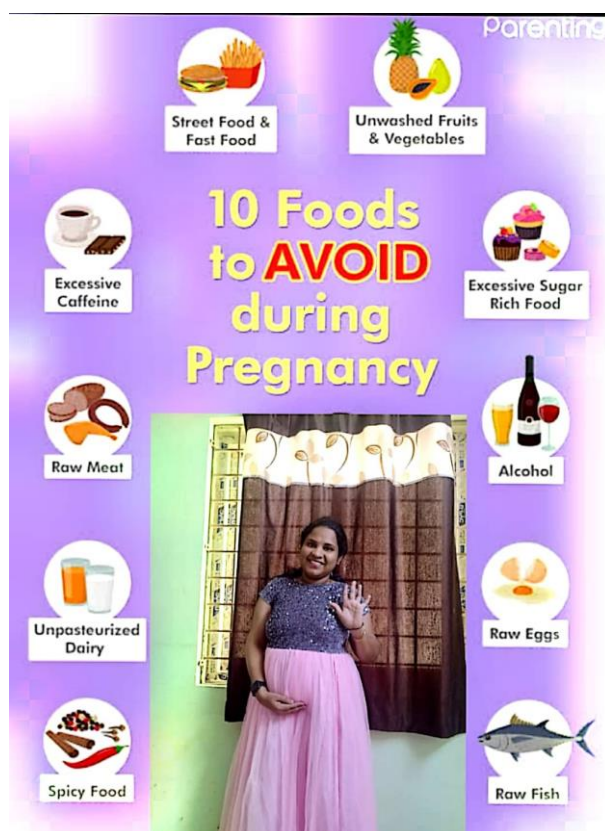
Pregnancy can create some new food, beverage, and eating concerns. Meet the needs of your body and be more comfortable with these tips. Check with your health care professional with any concerns.

- **Eat breakfast every day.** If you feel sick to your stomach in the morning, try dry whole-wheat toast or whole-grain crackers when you first wake up. Eat them even before you get out of bed. Eat the rest of your breakfast (fruit, oatmeal, hot or cold cereal, or other foods) later in the morning.
- **Eat high-fiber foods.** Eating high-fiber foods, drinking water, and getting daily physical activity may help prevent constipation. Try to eat whole-grain cereals, brown rice, vegetables, fruits, and beans.
- **If have heartburn, eat small meals spread throughout the day.** Try to eat slowly and avoid spicy and fatty foods (such as hot peppers or fried chicken). Have drinks between meals instead of with meals. Don't lie down soon after eating.

### What foods and drinks should I avoid?

Certain foods and drinks can harm your baby if you have them while you're pregnant. Here's a list of items you should avoid.

- **Alcohol.** Do not drink alcohol, such as wine, beer, or hard liquor.
- **Caffeine.** Enjoy decaf coffee or tea, drinks not sweetened with sugar, or water with a dash of juice. Avoid diet drinks, and limit drinks with caffeine to less than 200 mg per day—the amount in about 12 ounces of coffee.<sup>[3]</sup>
- **Fish that may have high levels of mercury** (a substance that can build up in fish and harm an unborn baby). Limit white (albacore) tuna to 6 ounces per week. Do not eat king mackerel, marlin, orange roughy, shark, swordfish, or tilefish. To get the helpful nutrients in fish and shellfish, you may eat up to 12 ounces of seafood per week, choosing from many safe seafood choices such as cod, salmon, and shrimp.<sup>[3]</sup>
- **Foods that may cause illness in you or your baby** (from viruses, parasites, or bacteria such as *Listeria* or *E. coli*). Avoid soft cheeses made from unpasteurized or raw milk; raw cookie dough; undercooked meats, eggs, and seafood; and deli salads. Take care in choosing and preparing lunch meats, egg dishes, and meat spreads. See more food safety guidelines during pregnancy.
- **Anything that is not food.** Some pregnant women may crave something that is not food, such as laundry starch, clay, ashes, or paint chips. This may mean that you're not getting the right amount of a nutrient. Talk to your health care professional if you crave something that isn't food. He or she can help you get the right amount of nutrients.



## Physical Activity



### Should I be physically active during my pregnancy?

Almost all women can and should be physically active during pregnancy.

- regular physical activity may
  - help you and your baby gain the appropriate amounts of weight
  - reduce backaches, leg cramps, and bloating
  - reduce your risk for gestational diabetes (diabetes during pregnancy)
  - reduce your risk for postpartum depression
- There's also some evidence that physical activity may reduce the risk of problems during pregnancy such as preeclampsia (high blood pressure during pregnancy), reduce the length of labor and postpartum recovery, and reduce the risk of having a cesarean section (or C-section)
  - If you were physically active before you became pregnant, you may not need to change your exercise habits. Talk with your health care professional about how to change your workouts during pregnancy.

### How much and what type of physical activity do I need?



According to current guidelines, most women need the same amount of physical activity as they did before becoming pregnant. Aim for at least 150 minutes a week of moderate-intensity aerobic activity. Aerobic activities—also called endurance or cardio activities—use large muscle groups (back, chest, and legs) to increase your heart rate and breathing. Brisk walking is a form of aerobic activity.

How can you tell if you're doing moderate-intensity aerobic activity? Take the "talk test" to find out. If you're breathing hard but can still have a conversation easily—but you can't sing—that's moderate intensity.

If you can only say a few words before pausing for a breath, that's called vigorous-intensity activity. If you were in the habit of doing vigorous-intensity aerobic activity or were physically active before your pregnancy, then it's likely okay for you to continue these activities during your pregnancy.

You can talk to your health care professional about whether to or how to adjust your physical activity while you're pregnant. If you have health issues such as obesity, high blood pressure, diabetes, or anemia (too few healthy red blood cells), ask your health care professional about a level of activity that's safe for you and your unborn baby.

**How can I stay active while pregnant?**

Even if you haven't been active before, you can be active during your pregnancy. Here are some tips.

- Go for a walk where you live, in a local park, or in a shopping mall with a family member or friend. If you already have children, take them with you and make it a family outing.
- Get up and move around at least once an hour if you sit most of the day. When watching TV or sitting at your computer, get up and move around. Even a simple activity like walking in place can help.

- Make a plan to be active while pregnant. List the activities you'd like to do, such as walking or taking a prenatal yoga class. Think of the days and times you could do each activity on your list, such as first thing in the morning, during your lunch break from work, after dinner, or on Saturday afternoon. Look at your calendar or phone or other device to find the days and times that work best and commit to those plans.

**POSTNATAL COUNSELLING****How can I stay healthy after my baby is born?**

After you deliver your baby, your health may be better if you try to return to a healthy weight slowly. Not losing your "baby weight" may lead to overweight or obesity later in life. Slowly returning to a healthy weight may lower your chances of diabetes, heart disease, and other weight-related problems.

Healthy eating, regular physical activity, adequate sleep, and other healthy habits after your baby is born may help you return to a healthy weight and give you energy.

After your baby is born

- Consume foods and beverages to meet your calorie needs.

- Regular physical activity will continue to benefit your overall health. Moderate-intensity physical activity will increase your fitness and can improve your mood.

Also, physical activity does not appear to have bad effects on how much breast milk is produced, what the breast milk contains, or how much the baby grows.

**How may breastfeeding help?**



Breastfeeding External link may or may not make it easier for you to lose weight because your body uses extra calories to produce milk. Even if breastfeeding does not help you lose weight, it's linked to many other benefits for mother and child.

For mothers who breastfeed, experts advise External link feeding their babies only breast milk for the first 6

months—no other foods or drinks during this time. Experts suggest that those women continue breastfeeding at least until their baby reaches 12 months.

Calorie needs when you're breastfeeding depend on how much body fat you have and how active you are. Talk with your health care professional about your calorie needs while you are breastfeeding.

### Benefits of breastfeeding



- likely gives him or her an appropriate mix of vitamins, minerals, and other important nutrients in a liquid (breast milk) that is easy to digest.
- helps boost his or her immune system.
- helps protect your baby from common problems, like ear infections and diarrhea.

Breastfeeding has many health benefits for mother and baby.

### Why do women die?

Women die as a result of complications during and following pregnancy and childbirth. Most of these complications develop during pregnancy and most are preventable or treatable. Other complications may exist before pregnancy but are worsened during pregnancy, especially if not managed as part of the woman's care. The major complications that account for around 75% of all maternal deaths are:

- severe bleeding (mostly bleeding after childbirth)
- infections (usually after childbirth)
- high blood pressure during pregnancy (pre-eclampsia and eclampsia)

- complications from delivery
- unsafe abortion.

### What else may help?

Pregnancy and the time after you deliver your baby can be wonderful, exciting, emotional, stressful, and tiring—all at once. These feelings may cause you to overeat, not get enough calories, or lose your drive and energy. Being good to yourself may help you cope with your feelings and follow healthy lifestyle habits.

Here are some ideas that may help.

- Sleep when the baby sleeps.
- Ask someone you trust to watch your baby while you nap, bathe, read, go for a walk, or go grocery shopping.
- Explore groups that you and your newborn can join, such as “new moms” groups.
- Don't feel like you need to do it all on your own. Seek help from friends, family members, or local support groups.





### Summary of Tips for Pregnancy

- Talk to your health care professional about how much weight you should gain during your pregnancy, and regularly track your progress.
- Consume foods and beverages rich in folate, iron, calcium, and protein. Talk with your health care professional about prenatal supplements (vitamins you may take while pregnant).
- Eat breakfast every day.
- Eat foods high in fiber, and drink fluids (particularly water) to avoid constipation.
- Avoid alcohol, raw or undercooked fish, fish high in mercury, undercooked meat and poultry, and soft cheeses.
- Do moderate-intensity aerobic activity at least 150 minutes a week during your pregnancy. If you have health issues, talk to your health care professional before you begin.
- After pregnancy, slowly get back to your routine of regular, moderate-intensity physical activity.
- Gradually return to a healthy weight.



**CONCLUSION**

These review article include information about pregnancy symptoms, vaccines, tests, complications, baby size growth, baby postions, medicines which are used during pregnancy and avoid, prenatal, antenatal, postnatal counseling.

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